AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended): A ~~pattern detecting~~ method of detecting a target pattern in a device forming region on a mask comprising:

selecting, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at a barycenter of the pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed;

setting [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]] ; and

detecting the target pattern based on the alignment reference coordinates.

2. (Currently Amended): The ~~pattern detecting~~ method according to claim 1, wherein ~~patterns which have the same distances~~ a pattern that is equally distant from two of the patterns ~~those which are~~ adjacent ~~on both sides~~ to the pattern in the first direction

~~are~~ is selected as the alignment ~~patterns~~ pattern.

3. (Currently Amended): The ~~pattern detecting~~ method according to claim 1, wherein from among adjacent patterns which are adjacent to each other in the first direction, ~~those which are~~ a pattern separated from ~~each other at such~~ the adjacent patterns by a distance that ~~the patterns are not deformed by bringing the patterns close to each other and by a difference of density of the patterns are~~ does not cause deformation of the adjacent patterns is selected as the alignment ~~patterns~~ pattern.

4. (Currently Amended): The ~~pattern detecting~~ method according to claim 1, further detecting the alignment pattern in the device forming region based on a reference position provided outside the device forming region after the alignment reference coordinates are ~~determined~~ set and before the target pattern is detected based on the alignment reference coordinates.

5. (Currently Amended): A ~~pattern detecting~~ method of detecting a target pattern in a device forming region on a mask, comprising:

selecting, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at barycenters of the pattern in first and second directions, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or~~

~~by a difference of density of the patterns at the time of pattern forming,~~ when the patters are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed;

setting [[a]] the barycenter position of the alignment pattern ~~in the first and second directions~~ as alignment reference coordinates, and

detecting the target pattern based on the alignment reference coordinates.

6. (Currently Amended): The ~~pattern detecting~~ method according to claim 5, wherein ~~patterns which have the same distances~~ a pattern that is equally distant from ~~those which are~~ two of the patterns adjacent ~~on both sides~~ to the pattern in the first or second direction ~~are~~ is selected as the alignment ~~patterns~~ pattern.

7. (Currently Amended): The ~~pattern detecting~~ method according to claim 5, wherein from among adjacent patterns which are adjacent to each other in the first or second direction, ~~those which are~~ a pattern separated from ~~each other at such~~ the adjacent patterns by a distance that does not cause deformation of the adjacent patterns ~~the patterns are not deformed by bringing the patterns close to each other and by a difference of density of the patterns are~~ is selected as the alignment ~~patterns~~ pattern.

8. (Currently Amended): The ~~pattern detecting~~ method according to claim 5, further detecting the alignment pattern in the device forming region based on a reference position provided outside the device forming region after the alignment reference

coordinates are ~~determined~~ set and before the target pattern is detected based on the alignment reference coordinates.

9. (Currently Amended): A ~~pattern checking~~ method of checking a target pattern in a device forming region on a mask, the method comprising:

selecting, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming~~ when the patters are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target patter is performed;

setting [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]];

detecting the target pattern based on the alignment reference coordinates[[,]]; and

checking the ~~detected~~ target pattern detected.

10. (Currently Amended): A ~~pattern correcting or processing~~ method of correcting or processing a pattern in a device forming region on a mask, the method comprising:

selecting, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at a barycenter pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed;

setting [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]];

detecting the target pattern based on the alignment reference coordinates[[,]]; and

correcting or processing the ~~detected~~ target pattern detected.

11. (Currently Amended): A ~~pattern detecting~~ device detecting a target pattern in a device forming region on a mask, the device comprising:

[[a]] an alignment reference setting unit which

selects, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region,~~ a pattern having a ~~patterns whose~~ barycenter ~~positions~~ position at a barycenter of the pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~

even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patters are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed, and

sets [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]]; and

a target pattern detecting unit which detects the target pattern based on the alignment reference coordinates.

12. (Currently Amended): The ~~pattern detecting~~ device according to claim 11, wherein ~~patterns which have the same distances~~ a pattern that is equally distant from ~~those which are~~ two of the patterns adjacent ~~on both sides~~ to the pattern in the first direction ~~are~~ is selected as the alignment ~~patterns~~ pattern.

13. (Currently Amended): The ~~pattern detecting~~ device according to claim 11, wherein from among adjacent patterns which are adjacent to each other in the first direction, ~~those which are~~ a pattern separated from ~~each other at such~~ the adjacent patterns by a distance that ~~the patterns are not deformed by bringing the patterns close to each other and by a difference of density of the patterns are~~ does not cause deformation of the adjacent patterns is selected as the alignment ~~patterns~~ pattern.

14. (Currently Amended): A ~~pattern detecting~~ device detecting a target pattern in a device forming region on a mask, the device comprising:

[[a]] an alignment reference setting unit which

selects, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at barycenters of the pattern in first and second directions, the barycenter position not being displaced form a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patters are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed, and

sets [[a]] the barycenter position of the alignment pattern ~~in the first and second directions~~ as alignment reference coordinates[[,]]; and

a target pattern detecting unit which detects the target pattern based on the alignment reference coordinates.

15. (Currently Amended): The ~~pattern detecting~~ device according to claim 14, wherein ~~patterns which have the same distances~~ a pattern that is equally distant from ~~those which are~~ two or the patterns adjacent ~~on both sides~~ to the pattern in the first or second direction ~~are~~ is selected as the alignment ~~patterns~~ pattern.

16. (Currently Amended): The ~~pattern detecting~~ device according to claim 14, wherein from among adjacent patterns which are adjacent to each other in the first or

second direction, ~~those which are~~ a pattern separated from ~~each other at such~~ the adjacent patterns by a distance that ~~the patterns are not deformed by bringing the patterns close to each other and by a difference of density of the patterns are~~ does not cause deformation of the adjacent patterns is selected as the alignment ~~patterns~~ pattern.

17. (Currently Amended): A ~~pattern checking device~~ device checking a target pattern in a device forming region on a mask, the device comprising:

[[a]] an alignment reference setting unit which

selects, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at a barycenter of the pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed, and

sets [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]];

a target pattern detecting unit which detects the target pattern based on the alignment reference coordinates[[,]]; and

a checking unit which checks the ~~detected~~ target pattern detected.

18. (Currently Amended): A ~~pattern correcting or processing device~~ device correcting or processing a pattern in a device forming region on a mask, the device comprising:

[[a]] an alignment reference setting unit which

selects, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at a barycenter of the pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed, and

sets [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]];

a target pattern detecting unit which detects the target pattern based on the alignment reference coordinates[[,]]; and

a correcting/processing unit which corrects or processes the ~~detected~~ target pattern detected.

19. (Currently Amended): A computer program containing instructions which when executed on a computer causes the computer to perform the steps of:

selecting, from among a group of ~~device~~ patterns included in a region near

[[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at a barycenter of the pattern in a first direction, the barycenter position not being displaced from a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is performed,

setting [[a]] the barycenter position of the alignment pattern in the first direction as alignment reference coordinates[[,]]; and

detecting the target pattern based on the alignment reference coordinates.

20. (Currently Amended) A computer program containing instructions which when executed on a computer causes the computer to perform the steps of:

selecting, from among a group of ~~device~~ patterns included in a region near [[a]] the target pattern, the region being in [[a]] the device forming region, ~~as an alignment pattern in the device forming region, patterns whose~~ a pattern having a barycenter ~~positions~~ position at barycenters of the pattern in first and second directions, the barycenter position not being displaced form a predetermined barycenter ~~are not changed~~ even if the patterns are deformed ~~by bringing the patterns close to each other or by a difference of density of the patterns at the time of pattern forming,~~ when the patterns are formed on the mask, as an alignment pattern in the device forming region, the alignment pattern for setting a position at which the detection of the target pattern is

performed, and

setting [[a]] the barycenter position of the alignment pattern ~~in the first and second directions~~ as alignment reference coordinates[[,]]; and

detecting the target pattern based on the alignment reference coordinates.